

Exercise 3: Digging into DNS

```
z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig www.eecs.berkeley.edu

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> www.eecs.berkeley.edu
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 15944
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 4, ADDITIONAL: 6

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;www.eecs.berkeley.edu.      IN      A

;; ANSWER SECTION:
www.eecs.berkeley.edu. 69632 IN      CNAME   live-eecs.pantheonsite.io.
live-eecs.pantheonsite.io. 592 IN      CNAME   fel.edge.pantheon.io.
fel.edge.pantheon.io. 292 IN      A       23.185.0.1

;; AUTHORITY SECTION:
edge.pantheon.io. 292 IN      NS       ns-1213.awsdns-23.org.
edge.pantheon.io. 292 IN      NS       ns-233.awsdns-29.com.
edge.pantheon.io. 292 IN      NS       ns-644.awsdns-16.net.
edge.pantheon.io. 292 IN      NS       ns-2013.awsdns-59.co.uk.

;; ADDITIONAL SECTION:
ns-233.awsdns-29.com. 70255 IN      A       205.251.192.233
ns-644.awsdns-16.net. 69508 IN      A       205.251.194.132
ns-1213.awsdns-23.org. 70686 IN      A       205.251.196.189
ns-2013.awsdns-59.co.uk. 65646 IN      A       205.251.199.221
ns-2013.awsdns-59.co.uk. 67136 IN      AAAA    2600:9000:5307:dd00::1

;; Query time: 0 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Wed Oct 07 17:14:18 AEDT 2020
;; MSG SIZE rcvd: 369
```

Question 1.

The IP address is 23.105.0.1.

The type of DNS query is A.

Question 2.

The canonical name for the eecs.berkeley web server is fel.edge.pantheon.io. And the IP address is 23.105.0.1.

Because the canonical name and IP address is difficult for people to remember. The alias is relate to the website content, people can know what page they want to reach by the alias.

Question 3.

In the Authority sections, it tells the NS servers for www.eecs.berkeley.edu and there are 4 authority name servers.

In Additional section, it shows the IP address for the authority name servers. And AAAA is for IPv6 addresses due to exercise 1.

Question 4.

The local IP address is 129.94.242.2

```

z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig eecs.berkeley.edu NS

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> eecs.berkeley.edu NS
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 54408
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 8

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;eecs.berkeley.edu.          IN      NS

;; ANSWER SECTION:
eecs.berkeley.edu.         4689    IN      NS      adns3.berkeley.edu.
eecs.berkeley.edu.         4689    IN      NS      ns.eecs.berkeley.edu.
eecs.berkeley.edu.         4689    IN      NS      adns1.berkeley.edu.
eecs.berkeley.edu.         4689    IN      NS      adns2.berkeley.edu.
eecs.berkeley.edu.         4689    IN      NS      ns.CS.berkeley.edu.

;; ADDITIONAL SECTION:
ns.CS.berkeley.edu.        23380   IN      A        169.229.60.61
ns.eecs.berkeley.edu.      29492   IN      A        169.229.60.153
adns1.berkeley.edu.        6042    IN      A        128.32.136.3
adns2.berkeley.edu.        6042    IN      A        128.32.136.14
adns2.berkeley.edu.        6105    IN      AAAA     2607:f140:ffff:fffe::e
adns3.berkeley.edu.        6042    IN      A        192.107.102.142
adns3.berkeley.edu.        6042    IN      AAAA     2607:f140:a000:d::abc

;; Query time: 0 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Wed Oct 07 17:57:43 AEDT 2020
;; MSG SIZE rcvd: 279

```

Question 5.

The DNS name servers for the “eecs.berkeley.edu.” are
 ns.CS.berkeley.edu which IP address is 169.229.60.61
 ns.eecs.berkeley.edu which IP address is 169.229.60.153
 adns1.berkeley.edu which IP address is 128.32.136.3
 adns2.berkeley.edu which IP address is 128.32.136.14
 adns3.berkeley.edu which IP address is 192.107.102.142

```

z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig -x 111.68.101.54

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> -x 111.68.101.54
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 6471
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 3

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;54.101.68.111.in-addr.arpa. IN      PTR

;; ANSWER SECTION:
54.101.68.111.in-addr.arpa. 3600    IN      PTR      webserver.seecs.nust.edu.pk.

;; AUTHORITY SECTION:
101.68.111.in-addr.arpa. 21194   IN      NS      ns1.hec.gov.pk.
101.68.111.in-addr.arpa. 21194   IN      NS      ns2.hec.gov.pk.

;; ADDITIONAL SECTION:
ns1.hec.gov.pk.            3600    IN      A        103.4.93.5
ns2.hec.gov.pk.            3600    IN      A        103.4.93.6

;; Query time: 773 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Wed Oct 07 18:11:41 AEDT 2020
;; MSG SIZE rcvd: 172

```

Question 6.

The DNS name of this IP address is webserver.seecs.nust.edu.pk.

The type of DNS query is PTR

```
z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @129.94.242.33 yahoo.com MX
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.242.33 yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 24177
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 5, ADDITIONAL: 10

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;yahoo.com.                IN      MX

;; ANSWER SECTION:
yahoo.com.                1113    IN      MX      1 mta7.am0.yahoodns.net.
yahoo.com.                1113    IN      MX      1 mta5.am0.yahoodns.net.
yahoo.com.                1113    IN      MX      1 mta6.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.                56009   IN      NS      ns1.yahoo.com.
yahoo.com.                56009   IN      NS      ns5.yahoo.com.
yahoo.com.                56009   IN      NS      ns4.yahoo.com.
yahoo.com.                56009   IN      NS      ns3.yahoo.com.
yahoo.com.                56009   IN      NS      ns2.yahoo.com.

;; ADDITIONAL SECTION:
ns1.yahoo.com.            487976  IN      A        68.180.131.16
ns1.yahoo.com.            10565   IN      AAAA     2001:4998:130::1001
ns2.yahoo.com.            505403  IN      A        68.142.255.16
ns2.yahoo.com.            30320   IN      AAAA     2001:4998:140::1002
ns3.yahoo.com.            514     IN      A        27.123.42.42
ns3.yahoo.com.            514     IN      AAAA     2406:8600:f03f:1f8::1003
ns4.yahoo.com.            14365   IN      A        98.138.11.157
ns5.yahoo.com.            18857   IN      A        202.165.97.53
ns5.yahoo.com.            18857   IN      AAAA     2406:2000:ff60::53

;; Query time: 5 msec
;; SERVER: 129.94.242.33#53(129.94.242.33)
;; WHEN: Wed Oct 07 18:17:38 AEDT 2020
;; MSG SIZE rcvd: 399
```

Question 7.

I did not get an authoritative answer. Because the flag don not include aa. The cse name server do not have an authority for yahoo domain.

```

z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @169.229.60.61 yahoo.co
m MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @169.229.60.61 yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: REFUSED, id: 16919
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 1
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;yahoo.com.                IN      MX

;; Query time: 167 msec
;; SERVER: 169.229.60.61#53(169.229.60.61)
;; WHEN: Wed Oct 07 18:32:13 AEDT 2020
;; MSG SIZE rcvd: 38

```

Question 8.

It say that recursion requested but not available and the status is REFUSED. Maybe it is due to security measure.

```

z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @ns1.yahoo.com yahoo.com
MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @ns1.yahoo.com yahoo.com MX
; (2 servers found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 4608
;; flags: qr aa rd; QUERY: 1, ANSWER: 3, AUTHORITY: 5, ADDITIONAL: 10
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1272
;; QUESTION SECTION:
;yahoo.com.                IN      MX

;; ANSWER SECTION:
yahoo.com.                1800    IN      MX      1 mta7.am0.yahoodns.net.
yahoo.com.                1800    IN      MX      1 mta5.am0.yahoodns.net.
yahoo.com.                1800    IN      MX      1 mta6.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.                172800  IN      NS      ns2.yahoo.com.
yahoo.com.                172800  IN      NS      ns3.yahoo.com.
yahoo.com.                172800  IN      NS      ns1.yahoo.com.
yahoo.com.                172800  IN      NS      ns5.yahoo.com.
yahoo.com.                172800  IN      NS      ns4.yahoo.com.

;; ADDITIONAL SECTION:
ns1.yahoo.com.            1209600 IN      A       68.180.131.16
ns2.yahoo.com.            1209600 IN      A       68.142.255.16
ns3.yahoo.com.            1800    IN      A       27.123.42.42
ns4.yahoo.com.            1209600 IN      A       98.138.11.157
ns5.yahoo.com.            86400   IN      A       202.165.97.53
ns1.yahoo.com.            86400   IN      AAAA    2001:4998:130::1001
ns2.yahoo.com.            86400   IN      AAAA    2001:4998:140::1002
ns3.yahoo.com.            1800    IN      AAAA    2406:8600:f03f:1f8::1003
ns5.yahoo.com.            86400   IN      AAAA    2406:2000:ff60::53

;; Query time: 145 msec
;; SERVER: 68.180.131.16#53(68.180.131.16)
;; WHEN: Wed Oct 07 18:41:35 AEDT 2020
;; MSG SIZE rcvd: 399

```

Question 9.

The flag contains aa and the type of DNS query is MX.

```
z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig . NS

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> . NS
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 22431
;; flags: qr rd ra; QUERY: 1, ANSWER: 13, AUTHORITY: 0, ADDITIONAL: 27

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
; .                        IN      NS

;; ANSWER SECTION:
.      225102 IN      NS      c.root-servers.net.
.      225102 IN      NS      d.root-servers.net.
.      225102 IN      NS      j.root-servers.net.
.      225102 IN      NS      b.root-servers.net.
.      225102 IN      NS      i.root-servers.net.
.      225102 IN      NS      l.root-servers.net.
.      225102 IN      NS      f.root-servers.net.
.      225102 IN      NS      a.root-servers.net.
.      225102 IN      NS      m.root-servers.net.
.      225102 IN      NS      k.root-servers.net.
.      225102 IN      NS      g.root-servers.net.
.      225102 IN      NS      e.root-servers.net.
.      225102 IN      NS      h.root-servers.net.

;; ADDITIONAL SECTION:
a.root-servers.net. 493701 IN      A        198.41.0.4
a.root-servers.net. 598500 IN      AAAA     2001:503:ba3e::2:30
b.root-servers.net. 98013  IN      A        199.9.14.201
b.root-servers.net. 329090 IN      AAAA     2001:500:200::b
c.root-servers.net. 443630 IN      A        192.33.4.12
c.root-servers.net. 443630 IN      AAAA     2001:500:2::c
d.root-servers.net. 443630 IN      A        199.7.91.13
d.root-servers.net. 443630 IN      AAAA     2001:500:2d::d
e.root-servers.net. 90676  IN      A        192.203.230.10
e.root-servers.net. 590086 IN      AAAA     2001:500:a8::e
f.root-servers.net. 84501  IN      A        192.5.5.241
f.root-servers.net. 329090 IN      AAAA     2001:500:2f::f
g.root-servers.net. 526015 IN      A        192.112.36.4
g.root-servers.net. 329090 IN      AAAA     2001:500:12::d0d
h.root-servers.net. 96332  IN      A        198.97.190.53
h.root-servers.net. 329089 IN      AAAA     2001:500:1::53
i.root-servers.net. 509268 IN      A        192.36.148.17

i.root-servers.net. 509268 IN      AAAA     2001:7fe::53
j.root-servers.net. 511134 IN      A        192.58.128.30
j.root-servers.net. 329090 IN      AAAA     2001:503:c27::2:30
k.root-servers.net. 77664  IN      A        193.0.14.129
k.root-servers.net. 737     IN      AAAA     2001:7fd::1
l.root-servers.net. 572878 IN      A        199.7.83.42
l.root-servers.net. 329089 IN      AAAA     2001:500:9f::42
m.root-servers.net. 90676  IN      A        202.12.27.33
m.root-servers.net. 329089 IN      AAAA     2001:dc3::35

;; Query time: 0 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Wed Oct 07 19:08:21 AEDT 2020
;; MSG SIZE rcvd: 811
```



```
z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @198.41.0.4 lyre00.cse.undw.edu.au
```

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @198.41.0.4 lyre00.cse.undw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 11147
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 9, ADDITIONAL: 19
;; WARNING: recursion requested but not available
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:: udp: 4096
;; QUESTION SECTION:
;lyre00.cse.undw.edu.au.                IN      A
```

```
;; AUTHORITY SECTION:
```

au.	172800	IN	NS	m.au.
au.	172800	IN	NS	d.au.
au.	172800	IN	NS	q.au.
au.	172800	IN	NS	t.au.
au.	172800	IN	NS	s.au.
au.	172800	IN	NS	r.au.
au.	172800	IN	NS	n.au.
au.	172800	IN	NS	a.au.
au.	172800	IN	NS	c.au.

```
;; ADDITIONAL SECTION:
```

m.au.	172800	IN	A	156.154.100.24
m.au.	172800	IN	AAAA	2001:502:2eda::24
d.au.	172800	IN	A	162.159.25.38
d.au.	172800	IN	AAAA	2400:cb00:2049:1::a29f:1926
q.au.	172800	IN	A	65.22.196.1
q.au.	172800	IN	AAAA	2a01:8840:be::1
t.au.	172800	IN	A	65.22.199.1
t.au.	172800	IN	AAAA	2a01:8840:c1::1
s.au.	172800	IN	A	65.22.198.1
s.au.	172800	IN	AAAA	2a01:8840:c0::1
r.au.	172800	IN	A	65.22.197.1
r.au.	172800	IN	AAAA	2a01:8840:bf::1
n.au.	172800	IN	A	156.154.101.24
n.au.	172800	IN	AAAA	2001:502:ad09::24
a.au.	172800	IN	A	58.65.254.73
a.au.	172800	IN	AAAA	2407:6e00:254:306::73
c.au.	172800	IN	A	162.159.24.179
c.au.	172800	IN	AAAA	2400:cb00:2049:1::a29f:18b3

```
;; Query time: 118 msec
;; SERVER: 198.41.0.4#53(198.41.0.4)
;; WHEN: Wed Oct 07 19:14:19 AEDT 2020
;; MSG SIZE rcvd: 591
```

```
z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @156.154.100.24 lyre00.unsw.edu.au
```

```
;; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @156.154.100.24 lyre00.unsw.edu.au
;; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 42807
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 4, ADDITIONAL: 9
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
lyre00.unsw.edu.au.          IN      A

;; AUTHORITY SECTION:
edu.au.                      86400   IN      NS      q.au.
edu.au.                      86400   IN      NS      s.au.
edu.au.                      86400   IN      NS      t.au.
edu.au.                      86400   IN      NS      r.au.

;; ADDITIONAL SECTION:
q.au.                        86400   IN      A       65.22.196.1
r.au.                        86400   IN      A       65.22.197.1
s.au.                        86400   IN      A       65.22.198.1
t.au.                        86400   IN      A       65.22.199.1
q.au.                        86400   IN      AAAA    2a01:8840:be::1
r.au.                        86400   IN      AAAA    2a01:8840:bf::1
s.au.                        86400   IN      AAAA    2a01:8840:c0::1
t.au.                        86400   IN      AAAA    2a01:8840:c1::1

;; Query time: 14 msec
;; SERVER: 156.154.100.24#53(156.154.100.24)
;; WHEN: Wed Oct 07 19:16:57 AEDT 2020
```

```
z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @65.22.196.1 lyre00.unsw.edu.au
```

```
;; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @65.22.196.1 lyre00.unsw.edu.au
;; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 15252
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 3, ADDITIONAL: 6
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
lyre00.unsw.edu.au.          IN      A

;; AUTHORITY SECTION:
unsw.edu.au.                 900     IN      NS      ns3.unsw.edu.au.
unsw.edu.au.                 900     IN      NS      ns2.unsw.edu.au.
unsw.edu.au.                 900     IN      NS      ns1.unsw.edu.au.

;; ADDITIONAL SECTION:
ns1.unsw.edu.au.             900     IN      A       129.94.0.192
ns2.unsw.edu.au.             900     IN      A       129.94.0.193
ns3.unsw.edu.au.             900     IN      A       192.155.82.178
ns1.unsw.edu.au.             900     IN      AAAA    2001:388:c:35::1
ns2.unsw.edu.au.             900     IN      AAAA    2001:388:c:35::2

;; Query time: 24 msec
;; SERVER: 65.22.196.1#53(65.22.196.1)
;; WHEN: Wed Oct 07 19:18:09 AEDT 2020
;; MSG SIZE rcvd: 205
```

```

z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @129.94.0.192 lyre00.cse.unsw.edu.au

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.0.192 lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 2602
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 2, ADDITIONAL: 5
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;lyre00.cse.unsw.edu.au.                IN      A

;; AUTHORITY SECTION:
cse.unsw.edu.au.                10800   IN      NS      beethoven.orchestra.cse.unsw.edu.au.
cse.unsw.edu.au.                10800   IN      NS      maestro.orchestra.cse.unsw.edu.au.

;; ADDITIONAL SECTION:
beethoven.orchestra.cse.unsw.edu.au. 10800   IN      A      129.94.208.3
beethoven.orchestra.cse.unsw.edu.au. 10800   IN      A      129.94.242.2
beethoven.orchestra.cse.unsw.edu.au. 10800   IN      A      129.94.172.11
maestro.orchestra.cse.unsw.edu.au. 10800   IN      A      129.94.242.33

;; Query time: 4 msec
;; SERVER: 129.94.0.192#53(129.94.0.192)
;; WHEN: Wed Oct 07 19:20:19 AEDT 2020
;; MSG SIZE rcvd: 171

```

```

z5290005@vx4:/tmp_amd/glass/export/glass/1/z5290005$ dig @129.94.208.3 lyre00.cse.unsw.edu.au

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.208.3 lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 13072
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 3

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;lyre00.cse.unsw.edu.au.                IN      A

;; ANSWER SECTION:
lyre00.cse.unsw.edu.au. 3600    IN      A      129.94.210.20

;; AUTHORITY SECTION:
cse.unsw.edu.au.                3600    IN      NS      beethoven.orchestra.cse.unsw.edu.au.
cse.unsw.edu.au.                3600    IN      NS      maestro.orchestra.cse.unsw.edu.au.

;; ADDITIONAL SECTION:
maestro.orchestra.cse.unsw.edu.au. 3600    IN      A      129.94.242.33
beethoven.orchestra.cse.unsw.edu.au. 3600    IN      A      129.94.242.2

;; Query time: 0 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Wed Oct 07 19:21:17 AEDT 2020
;; MSG SIZE rcvd: 155

```

Question 10.

The IP address is 129.94.210.20. There are 5 DNS servers I did to get the answer.

Question 11.

Yes, physical machine can have several names and/or IP addresses associated with it.

There can be lots of alias of a IP address and a physical can have several names and IP addresses.